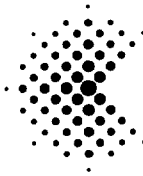


RECEIVED

NOV 3 01998

FCC MAIL ROOM



CLEAR CREEK MUTUAL TELEPHONE COMPANY

EX PARTE OR LATE FILED

EX PARTE OR LATE FILED

November 25, 1998

Ms. Magalie R. Salas, Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, D.C. 20554

Re: Ex Parte Notice
CC Docket No.98-163

Dear Ms. Salas:

Clear Creek Mutual Telephone Company submits the attached ex parte comments in response to the FCC's Notice of Proposed Rulemaking in the above referenced docket.

In accordance with the ex parte rules, two copies of this letter and attachments are being submitted to the Secretary. If there are any questions in this matter, please feel free to contact the undersigned.

Sincerely,

Mitchell Moore
President
Clear Creek Mutual Telephone Company

enclosures

cc: Attached Service List

No. of Copies rec'd 041
List ABCDE

I, Mitchell Moore, President of Clear Creek Mutual Telephone hereby certify that on this 25th day of November, 1998, I caused copies of the foregoing "Ex Parte Comments of Clear Creek Mutual Telephone Company" to be delivered by Federal Express to the following:

Mr. William Kennard
Chairman
Federal Communications Commission
1919 M Street, Room 814
Washington, DC 20554

Mr. Harold W. Furchgott-Roth
Commissioner
Federal Communications Commission
1919 M Street, Room 814
Washington, DC 20554

Mr. Michael Powell
Commissioner
Federal Communications Commission
1919 M Street, Room 814
Washington, DC 20554

Ms. Susan Ness
Commissioner
Federal Communications Commission
1919 M Street, Room 814
Washington, DC 20554

Ms. Gloria Tristani
Commissioner
Federal Communications Commission
1919 M Street, Room 814
Washington, DC 20554

Ms. Kathryn C. Brown
Chief
Common Carrier Bureau
Federal Communications Commission
1919 M Street, Room 500
Washington, DC 20554

Ms Anna Gomez
Chief
Network Services Division
Common Carrier Bureau
Federal Communications Commission
2000 M Street, Room 230
Washington, DC 20554

Mr. Kirk Schroeder
Deputy Chief
Network Services Division
Common Carrier Bureau
Federal Communications Commission
2000 M Street, Room 230
Washington, DC 20554

Ms. Blaise Scinto
Deputy Chief
Network Services Division
Common Carrier Bureau
Federal Communications Commission
2000 M Street, Room 230
Washington, DC 20554

Mr. Vincent Paladini
Network Services Division
Common Carrier Bureau
Federal Communications Commission
2000 M Street, Room 230
Washington, DC 20554

Mr. Al McCloud
(Electronic and Paper Copy)
Network Services Division
Common Carrier Bureau
Federal Communications Commission
2000 M Street, Room 235
Washington, DC 20554



Mitchell Moore

RECEIVED

EX PARTE OR LATE FILED

NOV 3 01998

**Before the
FCC MAIL ROOM Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
1998 Biennial Regulatory Review --)	
Modifications to Signal Power)	CC Docket No. 98-163
Limitations Contained in Part 68)	
of the Commission's Rules)	

**EX PARTE COMMENTS OF
CLEAR CREEK MUTUAL TELEPHONE COMPANY**

Clear Creek Mutual Telephone Company ("*Clear Creek*") respectfully submits these Ex Parte comments in response to the Notice of Proposed Rulemaking in the above-captioned proceeding.¹

Clear Creek is a Local Exchange Carrier providing service to 3760 access lines located within fifty-two square miles of rural Clackamas County, Oregon.² Clear Creek also provides broad band cable television service and acts as an Internet Service Provider to its members.

It is the opinion of Clear Creek that the existence of Pulse Code Modulation ("*PCM*") modems in the Public Switched Telephone Network ("*PSTN*"), regardless of the outcome of this docket creates dramatic and serious harmful effects on users and the future of high-speed communications in this country. The American consumer is already being misled by the unattainable performance claims of the PCM modem manufacturers and to some degree Internet Service Providers. A relaxation in the power constraints contained in Part 68 rules will only serve to

¹ 1998 Biennial Regulatory Review – Modifications to Signal Power Limitations Contained in Part 68 of the Commissions Rules, *Notice of Proposed Rulemaking*, (CC Docket No. 98-163), FCC 98-221(released September 16, 1998) ("*Notice*")

² Clear Creek is organized as a member-owned cooperative, which was originally incorporated in 1906 to provide telephone service in Clackamas County.

elevate the claims made by PCM modem manufacturers, which will further erode the consumers confidence in the PSTN telecommunications infrastructure.

In the notice the Federal Communications Commission ("*Commission*") proposed to modify its Part 68 rules to relax the signal power limitations, which currently apply to PCM modems. The notice proposes to increase the maximum signal power allowed for use by a PCM modem from the current -12dBm to a maximum of -6dBm.³ By far the majority of comments submitted in this docket suggest that the relaxation of the signal power limitation without collection of specific empirical data would be premature. Clear Creek concurs with those recommendations which, advise the Commission to await the results from the Alliance for Telecommunications Industry Solutions ("*ATIS*"), Committee T1, Working Group T1A1.7, A Test Plan for Investigating the Crosstalk Potential of Modems Conforming to ITU-T Recommendation V.90.⁴

The Commission suggests that this proceeding will seek comment on the use of PCM modems. However, in the notice it is proposed to "increase the power limit on encoded analog content specified in section 68.308(h)(1)(iv) and 68.308(h)(2)(v) from -12 dBm to -6 dBm."⁵ If enacted the Commission should draft language in the rule change only allowing -6dBm operation for the specific use of Pulse Code Modulation modems while operating under the V.90 specification. The T1 Committee T1A1.7 Working Group Test Plan⁶ specifically excludes testing or the collection of data when operating in a connection containing more than one segment which is analog.

Recent real world testing utilizing a dialing engine completed over 140,000 telephone calls to 89 ISPs and suggests connect speeds and throughput well below the claims of PCM modem

³ Limitation found at Section 68.308(h)(1)(iv) and 68.308(h)(2)(v) of the Commission's Part 68 Rules

⁴ Alliance for Telecommunications Industry Solutions (ATIS), Committee T1 at 5-6 and Exhibit B

⁵ 1998 Biennial Regulatory Review – Modifications to Signal Power Limitations Contained in Part 68 of the Commissions Rules, *Notice of Proposed Rulemaking*, (CC Docket No. 98-163) at 5

⁶ A Test Plan for Investigating the Crosstalk Potential of Modems Conforming to ITU-T Recommendation V.90 (Document T1A1.7/98-27r1) at 4

manufacturers. These calls were made to cities geographically dispersed across the United States, and averaged a call completion rate of 86.21 percent. The average reported connect speed was 30,241bps.⁷ In the comments filed by 3Com Corporation, laboratory test data indicate that 24awg wire loops can never achieve 56kbs speeds and more specifically at loop lengths over 12,000 feet they do not indicate what might be expected.⁸ They do indicate that variable loop length is a major loop parameter that affects speed. It is not uncommon for our customers to be served through loops, which vary between 38,000 to 50,000 feet. Relatively short by some rural standards.

In February 1996 the Rural Utilities Service⁹ ("RUS") approved the State Telecommunications Modernization Plan ("*plan*") developed by the Oregon Independent Telephone Association. The plan set forth the methods to implement the requirements of 7 CFR Part 1751¹⁰, entitled "Telecommunications System Planning and Design Criteria, and Procedures." The rule responds to the Rural Electrification Loan Restructuring Act of 1993 ("*RELRA*")¹¹. The modernization plan requirements are set forth in 7 CFR Part 1751.106, and must provide for uniform deployment schedules to ensure that advanced services are deployed at the same time in rural and non rural areas.¹² Any new facilities must be suitable, as built or with additional equipment, to provide transmission and reception of data at a rate no lower than 1 Mb/sec.¹³

⁷ The 56K Modem Battle *New V.90 Standard - Odd Findings and Startling Results - And It Does Appear to Matter* Boardwatch Magazine Editor: Jack Rickard - Volume XI: Issue 3 - ISSN:1054-2760 - March 1998

⁸ Comments of 3Com Corporation-Technical Appendix (*CC Docket No. 98-163*) (October 29, 1998)

⁹ The Rural Utilities Service, an agency of the United States Department of Agriculture established pursuant to Section 232 of the Federal Crop Insurance Reform and Department of Agriculture Reorganization Act of 1994 (7 U.S.C. 901 et seq., 1921 et seq.; Pub. L. 103-354, 108 Stat. 3178 (7 U.S.C. 6941 et seq.))

¹⁰ Source: 60 FR 8174, February 13, 1995

¹¹ The Rural Electrification Loan Restructuring Act of 1993 (107 Stat. 1356)

¹² Telecommunications System Planning and Design Criteria, and Procedures (7 CFR 1751.106 (5))

In order to comply with the plan, Local Exchange Carriers using RUS funds needed to reduce their loop lengths to less than 12,000 feet to support the future transmission of data. This involved the introduction of fiber optic transmission systems, as well as Digital Loop Carrier equipment into our system architecture. Clear Creek began installing Digital Loop Carrier equipment in 1993 to enhance the quality and reliability of telecommunication service to its members. Standards for integrated interconnection¹⁴ were still in the draft stage in 1993. Therefore the majority of Digital Loop Carrier equipment was installed in a universal configuration utilizing an analog connection to the central office switch. To date, sixty-eight percent of Clear Creek access lines are provisioned through Universal Digital Loop Carrier equipment with twenty-one percent of access lines due for conversion to Integrated Digital Loop Carriers systems early in 1999.

It has been noted that PCM modems will not operate in networks consisting of a hybrid connection containing at least two analog links between the modem and the modem pool.¹⁵ In the process of trying to verify the quality of our loops and assist our members in obtaining better data transmission speeds we have taken countless measurement of our facilities.¹⁶ While perhaps as inconclusive as the tests taken in a laboratory, they have the advantage of real world conditions. The standard loop assessment measurements indicate that by all industry measurements each of the illustrated loops shown would be considered high quality.¹⁷ Our tests and our member's experience

¹³ Telecommunications System Planning and Design Criteria, and Procedures (7 CFR 1751.106 (6)(i))

¹⁴ GR-303CORE, "Integrated Digital Loop Carrier Generic Requirements, Objectives, and Interface" Issue 1, September 1995, Bellcore

¹⁵ Comments Southwestern Bell Telephone at 5, A Test Plan for Investigating the Crosstalk Potential of Modems Conforming to ITU-T Recommendation V.90 (Document T1A1.7/98-27r1) at 4, Comments GTE Service Corporation at 6, Reply Comments BellSouth at 3

¹⁶ Exhibit "A", *Loop Assessment Universal Digital Loop Carrier Systems*, represents a typical sample of subscriber loop tests.

¹⁷ Telecommunications Standards and Specifications for Materials, Equipment and Construction (7 CFR Part 1755.97)

indicate they routinely connect at speeds of 24,400 bps through our Digital Loop Carrier systems. These nominal speeds are obtained after we invested in infrastructure that will bring SONET¹⁸ based fiber optic transmission to within 12,000 feet of ninety-eight percent of our member homes by 1999-year end. The loops, which remain analog, connect at speeds higher than DLC connections, but rarely above the V.34 standard rates.

The purpose of this docket is to determine if the relaxation of the signal power limit for PCM modems is likely to enable higher digital transmission rates for modem users without harmful effects on the network or its users.¹⁹ Clear Creek would suggest that regardless of the outcome of this docket there will be a dramatic and serious harmful effect on users and the future of high-speed communications in this country. Unfortunately, for today's computer users the modem, which they purchased, is incorporated in the computer sale and not generally part of the buying decision. The modem of choice for computer manufacturers is the PCM based product, which will never reach their advertised speed. The American consumer is being misled by the claims of the PCM modem manufacturers and to some degree Internet Service Providers. Out of necessity the Internet Service Provider is being forced to use disclaimers in small print and make questionable claims in their advertising. A recent advertisement that is typical made the claim "100% Guarantee You Will Connect to 56Kbs (V.90) modem"²⁰! The average citizen would anticipate from this statement that they should expect to connect at 56Kbs.

¹⁸ T1.105-1991 American National Standards for Telecommunications - Digital Hierarchy - Optical Interface Rates and Format Specifications (SONET) Synchronous Optical Networks.

¹⁹ 1998 Biennial Regulatory Review – Modifications to Signal Power Limitations Contained in Part 68 of the Commissions Rules, *Notice of Proposed Rulemaking*, (CC Docket No. 98-163) at 3

²⁰ The disclaimer on the noted advertisement contained the following language on the back panel printed in 8 point text. (... system is 100% digital and can operate at 56Kbps; however, FCC regulations limit modem connection speeds to 53Kbps. Actual speeds may vary depending on line conditions.)

Our members are experiencing a high level of frustration as they anticipate the equipment they purchased will work as advertised. The simple truth is it does not. A relaxation in the power constraints contained in Part 68 rules will only serve to elevate the claims made by PCM modem manufacturers. It will not change the connect speeds of any of our customers served by Digital Loop Carrier Systems. It will not change the connect speeds of the small number of our remaining members still served by analog loops if the Technical Appendix²¹ provided by 3Com Corporation is accurate. None of our members will achieve connect speeds approaching 56Kbs.

Eventually the consumer will get wise and determine that they have purchased equipment along with companion Internet services, which will never perform as represented. In the end they will lose trust in the service providers and equipment manufacturers. New products offered in the near future, that promise even faster connect speeds will be treated with much skepticism. The adoption of these promising products will be stunted by the misgivings of previous 56Kbs (V.90) users who will understandably be apprehensive. Products such as Asymmetric Digital Subscriber Line ("ADSL")²² will bear the scars of their predecessor.

In the end, the Commission in their attempt to achieve the long-term goal "to remove impediments to data transmission over the PSTN"²³ would make more progress by working with modem manufacturers and ISP's to ensure that the consumer is not misinformed about the expected level of performance of the 56Kbs (V.90) PCM modem equipment. Clear Creek concludes by requesting that the Commission await the results of the forthcoming data,²⁴ and weigh the results

²¹ Comments of 3Com Corporation-Technical Appendix (CC Docket No. 98-163) (October 29, 1998)

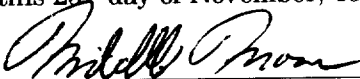
²² ANSI T1.413-1995, "Network and Customer Installation Interfaces – Asymmetric Digital Subscriber Line (ADSL) Metallic Interface.

²³ 1998 Biennial Regulatory Review – Modifications to Signal Power Limitations Contained in Part 68 of the Commissions Rules, *Notice of Proposed Rulemaking*, (CC Docket No. 98-163) at 6

²⁴ A Test Plan for Investigating the Crosstalk Potential of Modems Conforming to ITU-T Recommendation V.90 (Document T1A1.7/98-27r1)

against the potential limited benefits to data transmission rates before it raises its Part 68 signal power limitations.

Dated this 25th day of November, 1998

By: 

Clear Creek Mutual Telephone Company
18238 S. Fischers Mill Road
Oregon City, OR 97045
Mitchell Moore
President

EXHIBIT A
Loop Assessment Universal Digital Loop Carrier Systems²⁵

Standard Copper Loop Measurements²⁶

Loop Type	Loop Current	Loss dBm	Noise DBrnc	Pwr. Infl. dBrnc	Balance dB	Long. Bal dB
Universal DLC #1	31.4	6.3	10.4	73.7	62.3	69.3
Universal DLC #2	33.6	6.1	18.7	70.0	51.3	68.3
Analog Non-Load	29.9	5.9	9.0	77.9	68.9	60.1
Analog Loaded	27.6	5.3	12.3	89.5	77.2	70
Analog VFR	34.6	3.1	12.7	69.0	56.3	n/a VFR

Connect Speed Analysis²⁷

Loop Type	Loop Current	Connect bps	Connect bps -6db Pad	Connect bps -3db Pad	Connect bps -0db Pad	Bert
Universal DLC #1	31 ma	19200	19130	19120	19190	0/10K
Universal DLC #2	34 ma	26400	25940	25480	25940	0/10K
Analog Non-Load	30 ma	33600	32980	32980	32750	0/10K
Analog Loaded	27 ma	33600	32310	32310	32990	0/01K
Analog VFR	34 ma	33600	32070	32520	32990	0/10K

²⁵ Subscriber loop lengths were specifically left off of the above data to emphasize the effect that Universal Digital Loop Carrier systems have on initial connect speeds. The data indicates without specific loop length information, that DLC systems are impediments to data connect rates even in V.34 modes. Subscriber experience suggests however that in some cases, overall throughput can be improved on longer loops converted to DLC systems despite the lower connect speed dependent on a series of local factors.

²⁶ All loop data provided with Dynatel 965 CI Subscriber Loop Analyzer on real world in service subscriber loops with specific attributes described in table column identified as "Loop Type".

²⁷ All connect speeds performed using Tempo Research TR1096 Modem Line Tester on real world in service subscriber loops with specific attributes described in table column identified as "Loop Type". This equipment is limited to support of the V.34 standard and was selected due to the general unavailability of V.90 test equipment. The measurements taken by this equipment are considered more accurate than connect speeds reported on laptop computers. The results illustrate the difference between data transmission rates with and without Universal Digital Loop Carrier systems. Our testing with laptop computers equipped with V.90 PCM modem technology yielded similar results in all the loops identified above as they revert to V.34 operation.

CERTIFICATE OF SERVICE

I, Mitchell Moore, President of Clear Creek Mutual Telephone hereby certify that on this 25th day of November, 1998, I caused copies of the foregoing "Ex Parte Comments of Clear Creek Mutual Telephone Company" to be delivered by Federal Express to the following:

Mr. William Kennard
Chairman
Federal Communications Commission
1919 M Street, Room 814
Washington, DC 20554

Mr. Harold W. Furchgott-Roth
Commissioner
Federal Communications Commission
1919 M Street, Room 814
Washington, DC 20554

Mr. Michael Powell
Commissioner
Federal Communications Commission
1919 M Street, Room 814
Washington, DC 20554

Ms. Susan Ness
Commissioner
Federal Communications Commission
1919 M Street, Room 814
Washington, DC 20554

Ms. Gloria Tristani
Commissioner
Federal Communications Commission
1919 M Street, Room 814
Washington, DC 20554

Ms. Kathryn C. Brown
Chief
Common Carrier Bureau
Federal Communications Commission
1919 M Street, Room 500
Washington, DC 20554

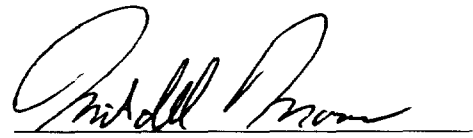
Ms Anna Gomez
Chief
Network Services Division
Common Carrier Bureau
Federal Communications Commission
2000 M Street, Room 230
Washington, DC 20554

Mr. Kirk Schroeder
Deputy Chief
Network Services Division
Common Carrier Bureau
Federal Communications Commission
2000 M Street, Room 230
Washington, DC 20554

Ms. Blaise Scinto
Deputy Chief
Network Services Division
Common Carrier Bureau
Federal Communications Commission
2000 M Street, Room 230
Washington, DC 20554

Mr. Vincent Paladini
Network Services Division
Common Carrier Bureau
Federal Communications Commission
2000 M Street, Room 230
Washington, DC 20554

Mr. Al McCloud
(Electronic and Paper Copy)
Network Services Division
Common Carrier Bureau
Federal Communications Commission
2000 M Street, Room 235
Washington, DC 20554


Mitchell Moore